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ABSTRACT

All special programs at Dean Rusk Elementary School, funded in part under Title I of the 1965 Elementary Secondary Education Act, combined to facilitate individualized instruction in the nongraded, open classroom setting of the school. To better meet the needs of the pupils during the 1972-73 school year, the Follow Through Program included, for the first time, the pupils in levels corresponding to grade three. As a result, the Follow Through Program operated in levels corresponding to grades Kindergarten through three. In addition, the Title I Program was restructured so that the most educationally deprived pupils were taken from the classroom for one hour of intensive reading instruction each day. The Career Opportunities Program paid all college costs for aides to attend accredited colleges or universities. Three aides at Dean Rusk Elementary School participated in COP. The Comprehensive Instructional Program was concerned with curriculum improvement and teacher inservice training. Follow Through made use of the Interdependent Learning Model, a games approach to learning. The project utilized a specialized method of teaching phonic skills and offered special instruction in music, art, speech, and inactive communication. The Title IV-A program consisted of a breakfast program and an extended day program for pupils six through 12 years old. (Author/JM)

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RESEARCH AND DEVELOPMENT REPORT

Vol. VII, No. 7 August, 1973

# INTERDEPENDENT LEARNING IN AN OPEN CLASSROOM SETTING

Dean Rusk Elementary School
1972-73

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## I. RATIONALE

Dean Rusk Elementary School was found to have both effective reading and effective mathematics programs during the 1971-72 school year based on the "Effective? Acceptable?" study conducted by the Division of Research and Development. However, in order for a program to be designated as acceptable during 1971-72, the pupils had to perform on the Metropolitan Achievement Tests (MAT) at levels corresponding to their grade levels. (Performance at grade level on the standardized test indicated the pupils were performing at the national norm.) The median performance levels of the pupils at Dean Rusk School were from one to two levels below grade level in mathematics and from one to three levels below grade level in reading.

To better meet the needs of the pupils at Dean Rusk Elementary School during the 1972-73 school year, the Follow Through Program included, for the first time, the pupils in levels corresponding to grade three. As a result, the Follow Through Program operated in levels corresponding to grades K-3 at Dean Rusk Elementary School. In addition, the Title I Program was restructured so that the most educationally deprived pupils were taken from the classroom for one hour of intensive reading instruction each day. Dean Rusk School had the benefit of the Career Opportunities Program (COP) and the Comprehensive Instructional Program (CIP) also.

All special programs at Dean Rusk Elmentary School combined to facilitate individualized instruction in the nongraded, open classroom setting of the school.

## II. SUPPORTING PROJECTS

### A. Career Opportunities Program

The Career Opportunities Program (COP) was a training program through which participants pursued professional certification. Although COP paid no salaries for aides, it did pay all college costs (tuition, books, and supplies) for aides to attend accredited colleges or universities. Three aides at Dean Rusk Elementary School participated in COP.

B. Comprehensive Instructional Program

The Comprehensive Instructional Program (CIP) was concerned with curriculum improvement and teacher inservice training. Reading and mathematics instruction in grades 1-3 of the Atlanta Public Schools was stressed. Through the CIP each school was encouraged to develop behaviorally stated objectives directed at improving the reading and mathematics instruction.

C. Follow Through Program

The Follow Through Program was designed for disadvantaged pupils. At Dean Rusk Elementary School all pupils in the kindergarten through levels corresponding to grade three had benefit of the Follow Through instructional program.

Follow Through made use of the Interdependent Learning Model (ILM), a games approach to learning. The project utilized a specialized method of teaching phonic skills, and offered special instruction in music, art, speech, and inactive communication. In addition, medical and dental care and psychological guidance were offered to all eligible pupils (pupils from homes designated as low-income by the Economic Opportunity Atlanta (EOA) sliding scale).

D. Elementary and Secondary Education Act (ESEA), Title I

The emphasis of the Title I program at Dean Rusk Elementary School was on improving the reading skills of the most educationally deprived pupils. Toward this effort, a lead teacher and five aides were hired through Title I funds.

E. Title IV-A Extended Day

The Title IV-A program at Dean Rusk Elementary School consisted of a breakfast program and an extended day program for pupils 6-12 years old. The program operated until December, 1972, at which time federal funding ceased.

## III. NEEDS OF THE PUPILS

The Follow Through pupils at Dean Rusk Elementary School were recognized as having the following needs:

A. To learn to read.

B. To develop mathematical ability.

C. To develop positive self-concepts and positive attitudes toward school, teachers, and peers.

D. To become independent learners.

E. To receive parental reinforcement for the Follow Through instructional program.

F. To receive medical and dental care.

G. To have psychological services available when needed.

## IV. GOALS, OBJECTIVES, CRITICAL VARIABLES

A. Goal: To enable pupils to read.

1. Phonic Skills Objective for Follow Through Pupils: The pupils will increase their competence in phonic skills so that they will achieve the following raw scores on the Phonic Skills Test (PST) posttest. Kindergarten, 19; Pod I (grade one), 31; Pod II (grade two), 43; and Pod II (grade three), 61.

   Critical Variable: Phonic skills.

2. Reading Objective for all Pupils in Pods II-IV (Grades 2-7): The pupils will achieve the projected level on the Iowa Tests of Basic Skills (ITBS) as defined by the Pupil Achievement Study conducted by the Division of Research and Development.

   Critical Variable: Reading skills.

3. Reading Objective for the Title I Pupils: Pupils who participate in the English-Reading activity will show a gain, between the pretest and posttest of the Metropolitan Achievement Tests (MAT), of at least one month for each month in the program in word knowledge and reading.

   Critical Variables: Word knowledge and reading.

B. Goal: To enable pupils to develop mathematics skills.

   Objective for the Pupils in Pods II-IV (Grades 2-7): The pupils will achieve the projected level as defined by the Pupil Achievement Study conducted by the Division of Research and Development.

   Critical Variable: Mathematics skills.

C. Goal: To enable pupils to develop positive self-concepts.

   1. Objective of Follow Through: The Follow Through pupils will demonstrate positive self-concepts on the Self-Appraisal Inventory (SAI).

   2. Objective of Title I Participants: Pupils will show improvement in self-concept and will demonstrate positive self-concepts on the Self-Appraisal Inventory (SAI).

   Critical Variable: Self-concept.

The following objectives pertain to the Follow Through Program only:

D. Goal: To promote parental involvement in the Follow Through Program.

   Objective: An increased number of parents will participate in parent meetings, in classroom visitation, and in parent volunteer groups during the 1972-73 school year as measured by a comparison of records kept by the Follow Through personnel.

   Critical Variable: Parental Involvement.

E. Goal: To provide medical and dental care for all eligible Follow Through pupils.

Objective: Each eligible Follow Through child will receive medical and dental check-ups during the year and, when indicated, additional treatment. Individual medical records in the form of a survey-checklist will be kept for each child.

Critical Variable: Health.

F. Goal: To provide psychological services to pupils.

Objective: Psychological services will be made available to all eligible pupils as needed. Referrals to psychologists will be made by teachers, social workers, or Follow Through staff when a need is observed so that the reason for referral will be eliminated.

Critical Variable: Psychological health.

## V. MANAGEMENT AND CONTROL

The principal was the chief administrator of Dean Rusk Elementary School. Serving under the principal were all staff members at the school, including special project personnel. The role of the leaders of special projects within the school was that of coordinating the instructional and special activities of the projects. The lead teacher for Title I supervised the Title I Program; the program assistant for Follow Through coordinated Follow Through activities.

A. Management and Control of Title I

The Title I staff consisted of the Title I lead teacher and five Title I aides. Since there were a total of 102 pupils from Pods I-IV (grades 1-7) in the program, three of the aides each worked with 20 pupils during the school day and two of the aides each worked with 21 pupils. However, each aide did not work with her total assigned group as a class; rather, the pupils were divided into five small groups consisting of three to six pupils, and each small group was tutored during one instructional period.

There were five one-hour instructional periods during the school day. Each period was divided as follows: 10 minutes for preparation by aide, 45 minutes for instruction, and 5 minutes for a break. The sixth period of the day was used by the lead teacher and the aides for evaluation of the pupils' progress and for inservice training.

Title I reading instruction took place outside the classroom in one of several small rooms designated for Title I activities, but care was taken in scheduling so that no child missed the basic reading and mathematics instruction in his classroom.

B. Management and Control of Follow Through

In addition to the program assistant, the local Follow Through staff included the following: (1) one parent assistant, (2) three parent workers, (3) classroom teachers at levels corresponding to grades K-3, and (4) one educational aide for each Follow Through classroom. As the name implies, the parent assistant and parent workers were parents of Follow Through pupils. The parent assistant handled all clerical work for Follow Through; and the parent workers visited the homes of each eligible Follow Through pupil, supervised the transportation of Follow Through pupils to the dentist and physician, and sought parent volunteers for Follow Through.

## VI. PROCESS

In the open classroom setting of Dean Rusk Elementary School, the pupils were grouped into four nongraded clusters or pods. Within each pod the following levels operated: Pod I, levels 1-4; Pod II, levels 5-11; Pod III, levels 12-15; and Pod IV, levels 16-20.

A. Process of the Title I Program

The Title I Program was designed for teaching reading skills to the most educationally deprived pupils in grades 1-7. The 102 pupils were selected for participation on the following basis: Metropolitan Achievement Tests (MAT) scores, Comprehensive Instructional Program (CIP) scores, and teacher recommendations.

The following reading skills were taught in the program:

1. To identify and write capital and lower case letters of the alphabet.

2. To sound the letters individually.

3. To sound long and short vowels.

4. To sound initial consonants, blends, digraphs, dipthongs, and phonograms.

5. To identify root words, prefixes, suffixes, and compounds.

6. To identify synonyms, antonyms, and homonyms.

7. To divide words into syllables, thus helping in pronunciation.

8. To identify contractions.

9. To identify main and implied ideas from sentences, paragraphs, and stories.

10. To spell.

11. To communicate using correct English.

A variety of materials were used in the program to facilitate instruction. They were as follows: (1) stencils, (2) paper and pencil, (3) flannel boards, (4) a record player, (5) a language master, (6) a tape recorder, (7) a television, (8) flash cards, (9) talking books, and (10) instructional games. No basal readers were used in the program; they were used in general classroom reading instruction.

B. Process of the Follow Through Program

The Interdependent Learning Model (ILM) was the basic model for teaching all Follow Through classes. The model made use of a game format for reinforcing classroom instruction and strengthening skills. The games, which were made by the Follow Through staff and parent volunteers, were developed as needed.

An important component of the ILM was the method utilized for teaching phonic skills. All Follow Through

classes at Dean Rusk were taught the Direct Approach to Decoding (DAD). The DAD was used along with basal readers.

A Follow Through aide was assigned to each Follow Through class. The aide worked under the guidance of the classroom teacher and served mainly as a tutor for small groups of pupils.

The three parent workers worked with the Follow Through social worker and directly under the Follow Through program assistant. They visited the home of each eligible child, explained the Follow Through program, and attempted to enlist the active support of parents for the Follow Through program.

In addition to the specialized instructional program, Follow Through offered each eligible child medical and dental care. Also, psychological services were made available to pupils who demonstrated emotional problems which affected classroom participation and learning.

## VII. DIAGNOSIS

The following instruments were used in the evaluation of the Dean Rusk Elementary School program:

A. The Metropolitan Readiness Tests (MRT) and the Metropolitan Achievement Tests (MAT) which were administered to all Title I participants in October, 1972, and May, 1973.

B. The Iowa Tests of Basic Skills (ITBS) which was administered to all pupils (excluding the educable mentally retarded pupils) in May, 1973.

C. The Phonic Skills Test which was administered to all Follow Through pupils as pretest and posttest.

D. The Self-Appraisal Inventory (SAI) which was administered to the Follow Through pupils and the Title I pupils in March, 1973.

E. The Opinionnaire On Attitudes Toward Education which was anonymously answered by the teachers and aides of Dean Rusk Elementary School.

F. Follow Through medical and dental surveys and parent participation records.

## VIII. EVALUATION

The Pupil Achievement Study was conducted by the Division of Research and Development in order to compare the progress of all the elementary pupils of Atlanta Public Schools by school and by grade level. There were eight factors involved in predicting the scores for each grade level. The factors were as follows:

A. The 1971-72 Metropolitan Achievement Tests (MAT) reading posttest scores.

B. The 1971-72 Metropolitan Achievement Tests (MAT) mathematics computation posttest scores.

C. Per cent of paid lunches.

D. Per cent of paid lunches squared.

E. Per cent of pupil attendance.

F. Actual grade levels of the pupils.

G. Teacher/pupil ratio.

H. Stability index.

At Dean Rusk Elementary School the pupils achieved the predicted scores, based on the eight factors, in both reading and mathematics. Therefore, both the reading program and the mathematics program were effective. This was the second consecutive year that the mathematics program at Dean Rusk Elementary School was found to be effective, and the third consecutive year that the reading program was found to be effective. (Mathematics performance was not included in the "Effective? Acceptable" study of 1970-71.)

Compared with other elementary and middle schools within the Atlanta Public Schools, the pupils of Dean Rusk Elementary School were at the 46 percentile in relation to the overall predicted performance.

The mean performance of the pupils at Dean Rusk Elementary School was below grade level in both reading and mathematics on the Iowa Tests of Basic Skills. In comparison with the performance of pupils systemwide, the pupils of Dean Rusk Elementary School were at the 26 percentile in relation to the national norm.

The results of the study of Dean Rusk Elementary School are included in Table 1.

Performance of the Follow Through Pupils

A. Phonic Skills

All Follow Through pupils (pupils at levels corresponding to grades K-3) were taught phonic skills through the Direct Approach to Decoding (DAD) and were administered the Phonic Skills Test as pretest and posttest. The phonic skills objective was as follows:

> The pupils will increase their competence in phonic skills so that they will achieve the following raw scores on the Phonic Skills Test posttest: kindergarten, 19; Pod I (grade one), 31; Pod II (grade 2), 43; and Pod II (grade 3), 61.

The kindergarten children, who were introduced to the DAD during the school year, were administered the Phonic Skills Test in November, 1972, and again in the spring, 1973. (The mean raw scores are listed in Table 2). The kindergarten pupils, while gaining on each subtest between the pretest and the posttest, did not achieve the objective of a total mean raw score of nineteen on the Phonic Skills Test posttest.

TABLE 1

PUPIL ACHIEVEMENT STUDY USING THE
IOWA TESTS OF BASIC SKILLS, APRIL, 1973
DEAN RUSK ELEMENTARY SCHOOL

| | Grade Equivalent Score | | | Summary Indices | |
|---|---|---|---|---|---|
| Grade | Actual | Predicted | National Norm | Predicted Quotient | National Norm Quotient |
| | | | READING TEST DATA | | |
| 2 | 1.8 | 1.9 | 2.7 | 94 | 65 |
| 3 | 2.6 | 2.5 | 3.8 | 102 | 68 |
| 4 | 3.0 | 3.0 | 4.7 | 99 | 63 |
| 5 | 3.9 | 3.9 | 5.7 | 99 | 68 |
| 6 | 4.4 | 4.7 | 6.7 | 94 | 65 |
| 7 | 5.5 | 5.2 | 7.6 | 105 | 72 |
| | | | AVERAGE | 98 | 66 |
| | | | MATHEMATICS TEST DATA | | |
| 2 | 2.0 | 2.0 | 2.6 | 98 | 77 |
| 3 | 2.7 | 2.7 | 3.7 | 99 | 73 |
| 4 | 3.4 | 3.3 | 4.7 | 104 | 72 |
| 5 | 4.0 | 4.2 | 5.6 | 94 | 70 |
| 6 | 4.8 | 5.1 | 6.6 | 94 | 72 |
| 7 | 5.8 | 5.6 | 7.6 | 102 | 75 |
| | | | AVERAGE | 98 | 73 |
| | | | COMPOSITE TEST DATA | | |
| 2 | 1.9 | 2.1 | 2.6 | 91 | 71 |
| 3 | 2.7 | 2.7 | 3.7 | 99 | 72 |
| 4 | 3.2 | 3.2 | 4.7 | 99 | 68 |
| 5 | 4.1 | 4.1 | 5.7 | 98 | 72 |
| 6 | 4.5 | 4.9 | 6.7 | 91 | 67 |
| 7 | 5.8 | 5.5 | 7.6 | 105 | 76 |
| | | | AVERAGE | 97 | 71 |

TABLE 2

PHONIC SKILLS TEST PERFORMANCE
OF THE KINDERGARTEN PUPILS
1972-73

| Subtests | Pretest Mean Raw Score | Posttest Mean Raw Score |
|---|---|---|
| Letter Sounds | 2.7 | 4.1 |
| Decoding | 1.8 | 2.4 |
| Auditory Blending | 1.4 | 3.0 |
| Oral Reading | 1.0 | 2.4 |
| Total | 6.1 | 17.5 |

The Phonic Skills Test pretest scores of the Pod I (first grade) pupils who had attended Follow Through kindergarten were compared with the scores of pupils who had participated in Follow Through during the Pod I only. (The comparison of the mean raw scores is listed in Table 3.) There was no significant difference in the pretest performance of the two groups.

When given as a posttest, the mean performance of the total Pod I (first grade) group was as follows: Letter sounds, 7.0; decoding, 3.7; auditory blending, 10.8; oral reading, 5.0; and the total test score, 26.5. Therefore, the objective of a total mean raw posttest score of 31 was not achieved by the Pod I pupils.

The Pod II (second grade) pupils were divided into three Follow Through experience groups for analysis of the Phonic Skills Test pretest performance. (The mean raw scores of the pupils are listed in Table 4 and the analysis of variance is shown in Table 5.) There were no significant differences (.05 level) among the scores of the Pod II (second grade) pupils who participated in Follow Through from kindergarten through Pod II (grade 2), the pupils who participated during Pods I and II (first and second grades), and the pupils who participated during Pod II (second grade) only. The Phonic Skills Test posttest scores for the total Pod II (second grade) group were analyzed and the mean raw scores were as follows: Letter sounds, 9.4; decoding, 13.7; auditory blending, 22.8; oral reading, 17.7; and test total, 63.6. The second grade pupils, therefore, achieved the objective by exceeding the predicted total test score of 43.

TABLE 3

PHONIC SKILLS TEST PERFORMANCE OF THE POD I (FIRST GRADE) PUPILS, NOVEMBER, 1972

| Subtests | Participant in FT During Pod I (Grade 1) Only | | | Participants in FT During K and Pod I (Grade 1) | | | t |
|---|---|---|---|---|---|---|---|
| | Mean | S.D. | N | Mean | S.D. | N | |
| Letter Sounds | 4.3 | 2.8 | 29 | 4.3 | 2.7 | 35 | 0.05 |
| Decoding | 2.1 | 2.8 | 29 | 1.9 | 2.4 | 35 | 0.20 |
| Auditory Blending | 3.7 | 4.7 | 29 | 4.3 | 5.4 | 35 | 0.49 |
| Oral Reading | 1.8 | 2.3 | 29 | 1.5 | 2.5 | 35 | 0.51 |
| Total | 11.8 | 10.5 | 29 | 11.9 | 9.1 | 35 | 0.03 |

TABLE 4

THE PHONIC SKILLS TEST SCORES OF THE POD II (SECOND GRADE) PUPILS, NOVEMBER, 1972

| Subtests | FT Participants During Pod II (Second Grade) Only | | | FT Participants During Pods I and II (First and Second Grades) | | | FT Participants During K through Pod II (K-grade 2) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean Raw Score | S.D. | N | Mean Raw Score | S.D. | N | Mean Raw Score | S.D. | N |
| Letter Sounds | 9.40 | 0.70 | 10 | 8.21 | 2.39 | 14 | 8.36 | 2.33 | 58 |
| Decoding | 5.70 | 3.59 | 10 | 8.71 | 6.58 | 14 | 8.47 | 6.22 | 58 |
| Auditory Blending | 12.30 | 6.58 | 10 | 13.43 | 6.57 | 14 | 13.16 | 6.33 | 58 |
| Oral Reading | 8.00 | 5.53 | 10 | 9.86 | 7.55 | 14 | 10.04 | 7.38 | 58 |
| Total | 35.40 | 12.50 | 10 | 40.21 | 19.33 | 14 | 39.83 | 19.30 | 58 |



TABLE 5

ANALYSIS OF VARIANCE OF THE PHONIC SKILLS TEST RAW SCORES AMONG THE POD II (SECOND GRADE) PUPILS

| Subtests | Sum of Squares Between Groups | Degrees of Freedom Between Groups | Sum of Squares Within Groups | Degrees of Freedom Within Group | F |
|---|---|---|---|---|---|
| Letter Sounds | 10.24 | 2 | 390.15 | 79 | 1.04 |
| Decoding | 70.22 | 2 | 2,891.39 | 79 | 0.96 |
| Auditory Blending | 8.09 | 2 | 3,239.13 | 79 | 0.10 |
| Oral Reading | 35.36 | 2 | 4,017.64 | 79 | 0.34 |
| Total | 179.71 | 2 | 27,505.03 | 79 | 0.26 |

Using the same procedures for analysis as used with the other Follow Through levels, a comparison of the Pod II (third grade) pretest scores of the Phonic Skills Test was made to determine if the number of years in Follow Through was a factor in the performance levels of the pupils. (The mean raw scores are listed in Table 6 and the analysis of variance in Table 7.) No significant differences (.05 level) in scoring were found among the four groups. The total Pod II (third grade) mean raw scores on the Phonic Skills Test administered as posttest were as follows: Letter sounds, 9.7; decoding, 19.9; auditory blending, 26.4; oral reading, 23.9; and test total, 79.8. The pupils exceeded the predicted test total score of 61, thereby achieving the phonic skills objective.

B. Mathematics and Reading Performance of the Follow Through Pupils

The Follow Through Pod II (second and third grades) was included in the Pupil Achievement Study conducted by the Research and Development Division, and the pupils were found to be performing on the Iowa Tests of Basic Skills (ITBS) as predicted in both reading and mathematics. The scores of the Pod I (first grade) pupils were not included in the study.

The ITBS scores of the Pod I (first grade) pupils who had participated in the Follow Through kindergarten were compared with the scores of the Pod I pupils who had not attended Follow Through kindergarten. (See Table 8.) There was no significant difference (.05 level) between the scores.

TABLE 6

THE PHONIC SKILLS TEST PERFORMANCE OF THE
POD II (THIRD GRADE) PUPILS, NOVEMBER, 1972

| Subtests | Participants in FT During Pod II (Third Grade) Only | | | Participants in FT During Pod II (Second & Third Grades) | | | Participants in FT During Pods I and II (Grades 1-3) | | | Participants in FT During K-Pod II (K-Grade 3) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Raw Score | S.D. | N | Mean Raw Score | S.D. | N | Mean Raw Score | S.D. | N | Mean Raw Score | S.D. | N |
| Letter Sounds | 8.82 | 2.34 | 22 | 8.14 | 3.37 | 14 | 9.00 | 1.60 | 19 | 9.47 | 1.56 | 45 |
| Decoding | 15.95 | 8.23 | 22 | 12.57 | 8.88 | 14 | 10.79 | 7.65 | 19 | 13.45 | 7.64 | 42 |
| Auditory Blending | 17.43 | 7.84 | 21 | 18.21 | 9.75 | 14 | 18.45 | 8.45 | 19 | 17.62 | 8.89 | 45 |
| Oral Reading | 20.18 | 7.79 | 22 | 14.07 | 11.45 | 14 | 15.89 | 10.18 | 19 | 18.24 | 9.24 | 45 |
| Total | 61.05 | 22.42 | 22 | 53.00 | 29.93 | 14 | 54.16 | 23.61 | 19 | 59.00 | 24.97 | 45 |

TABLE 7

ANALYSIS OF VARIANCE OF THE PHONIC SKILLS TEST
RAW SCORES OF THE POD II (THIRD GRADE) PUPILS, NOVEMBER, 1972

| Subtests | Sum of Squares Between Groups | Degrees of Freedom Between Groups | Sum of Squares Within Groups | Degrees of Freedom Within Groups | F |
|---|---|---|---|---|---|
| Letter Sounds | 20.56 | 3 | 416.19 | 96 | 1.58 |
| Decoding | 282.69 | 3 | 5,905.95 | 93 | 1.48 |
| Auditory Blending | 15.27 | 3 | 7,246.81 | 95 | 0.07 |
| Oral Reading | 394.74 | 3 | 8,808.30 | 96 | 1.43 |
| Total | 869.91 | 3 | 59,683.48 | 96 | 0.47 |

TABLE 8

A COMPARISON OF THE IOWA TESTS OF BASIC SKILLS
PERFORMANCE OF THE POD I (FIRST GRADE) PUPILS -- 1972-73

| | Participants in FT During Pod I Only | | | Participants in FT During K and Pod I | | | |
|---|---|---|---|---|---|---|---|
| Subtests | Mean Grade Equivalent | S.D. | N | Mean Grade Equivalent | S.D. | N | t |
| Vocabulary | 1.45 | 0.60 | 33 | 1.38 | 0.56 | 36 | 0.57 |
| Word Analysis | 1.43 | 0.66 | 33 | 1.30 | 0.46 | 35 | 0.97 |
| Reading Comprehension | 1.72 | 0.52 | 34 | 1.91 | 0.54 | 35 | 1.41 |
| Spelling | 1.68 | 0.51 | 35 | 1.39 | 0.39 | 35 | 2.72 |
| Math Concepts | 1.39 | 0.42 | 35 | 1.26 | 0.38 | 35 | 1.33 |
| Math Problem Solving | 1.45 | 0.67 | 34 | 1.53 | 0.56 | 34 | 0.54 |
| Math Total | 1.44 | 0.50 | 33 | 1.41 | 0.42 | 34 | 0.30 |
| Test Total | 1.54 | 0.44 | 36 | 1.46 | 0.33 | 35 | 0.79 |

The ITBS performance of the Pod II (second grade) pupils who participated in Follow Through from kindergarten through Pod II (second grade) was compared with the performance of the pupils who had participated during Pods I and II (first and second grades) and the pupils who had participated during Pod II (second grade) only. (The scores are listed in Table 9 and the analysis of variance in Table 10.) No significant differences were found among the three groups.

The ITBS scores of the Pod II (third grade) pupils were analyzed on the basis of the number of years of Follow Through experience. (The scores are listed in Table 11 and the analysis of variance in Table 12.) There was no significant difference found based on the number of years participation in Follow Through.

C. Self-Concept of the Follow Through Pupils

A sample of forty-two Follow Through pupils, matched by sex, was administered the Self-Appraisal Inventory, in March, 1973, by a team from the Division of Research and Development. The inventory measured attitudes in four areas: peer, family, school, and general. The results of the inventory, shown in Table 13, indicated the pupils had generally positive attitudes in all four areas.

TABLE 9

A COMPARISON OF THE IOWA TESTS OF BASIC SKILLS SCORES
OF THE POD II (SECOND GRADE) -- 1972-73

| Subtests | Pupils in FT During Grade 2 Only | | | Pupils in FT During Grades 1 and 2 | | | Pupils in FT During Grades K-2 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean Grade Equivalent Score | S.D. | N | Mean Grade Equivalent Score | S.D. | N | Mean Grade Equivalent Score | S.D. | N |
| Vocabulary | 1.94 | 0.90 | 14 | 1.82 | 0.73 | 13 | 1.84 | 0.72 | 51 |
| Word Analysis | 1.99 | 0.72 | 14 | 1.91 | 0.80 | 13 | 1.95 | 0.63 | 50 |
| Reading Comprehension | 1.74 | 0.52 | 14 | 1.88 | 0.34 | 12 | 2.05 | 0.56 | 50 |
| Spelling | 2.46 | 0.95 | 14 | 1.97 | 0.70 | 12 | 2.27 | 0.95 | 50 |
| Math Concepts | 2.29 | 0.72 | 14 | 1.95 | 0.69 | 13 | 2.05 | 0.60 | 52 |
| Math Problem Solving | 2.34 | 0.76 | 14 | 2.02 | 0.40 | 12 | 2.24 | 0.57 | 48 |
| Math Total | 2.34 | 0.68 | 14 | 2.04 | 0.33 | 12 | 2.19 | 0.51 | 48 |
| Test Total | 2.14 | 0.61 | 14 | 1.96 | 0.37 | 12 | 2.11 | 0.54 | 46 |

TABLE 10

ANALYSIS OF VARIANCE OF THE IOWA TESTS OF BASIC SKILLS
SCORES AMONG POD II (SECOND GRADE) PUPILS -- 1972-73

| Subtests | Sum of Squares Between Groups | Degrees of Freedom Between Groups | Sum of Squares Within Groups | Degrees of Freedom Within Groups | F |
|---|---|---|---|---|---|
| Vocabulary | 0.12 | 2 | 42.97 | 75 | 0.11 |
| Word Analysis | 0.04 | 2 | 34.39 | 74 | 0.04 |
| Reading Comprehension | 1.16 | 2 | 20.80 | 73 | 2.04 |
| Spelling | 1.58 | 2 | 61.89 | 73 | 0.94 |
| Math Concepts | 0.88 | 2 | 28.54 | 76 | 1.17 |
| Math Problem Solving | 0.73 | 2 | 24.63 | 71 | 1.05 |
| Math Total | 0.59 | 2 | 19.78 | 71 | 1.06 |
| Test Total | 0.25 | 2 | 19.99 | 69 | 0.43 |

TABLE 11

A COMPARISON OF THE IOWA TESTS OF BASIC SKILLS SCORES
OF THE POD II (THIRD GRADE) PUPIL -- 1972-73

| Subtests | Pupils in FT During Grade 3 Only | | | Pupils in FT During Grades 2 & 3 | | | Pupils in FT During Grades 1-3 | | | Pupils in FT During Grades K-3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Grade Equivalent Score | S.D. | N | Mean Grade Equivalent Score | S.D. | N | Mean Grade Equivalent Score | S.D. | N | Mean Grade Equivalent Score | S.D. | N |
| Vocabulary | 3.01 | 1.04 | 19 | 2.82 | 0.92 | 14 | 2.78 | 0.72 | 20 | 2.67 | 0.77 | 46 |
| Reading Comprehension | 2.91 | 0.93 | 19 | 2.91 | 0.77 | 14 | 2.71 | 0.86 | 20 | 2.72 | 0.67 | 46 |
| Spelling | 3.67 | 1.53 | 21 | 3.49 | 1.35 | 14 | 3.51 | 1.67 | 20 | 3.80 | 1.45 | 46 |
| Capitalization | 3.41 | 1.11 | 19 | 3.42 | 1.04 | 14 | 3.31 | 1.11 | 18 | 3.03 | 0.86 | 43 |
| Punctuation | 3.52 | 1.34 | 19 | 3.34 | 1.04 | 14 | 3.37 | 1.27 | 20 | 3.02 | 1.09 | 43 |
| Language Usage | 2.74 | 1.02 | 19 | 2.81 | 0.76 | 14 | 2.43 | 0.87 | 20 | 2.50 | 0.66 | 43 |
| Map Skills | 2.57 | 0.89 | 19 | 2.89 | 0.72 | 14 | 2.67 | 0.91 | 20 | 2.48 | 0.73 | 46 |
| Graph Table | 2.51 | 0.86 | 19 | 2.50 | 0.83 | 14 | 2.74 | 0.74 | 20 | 3.09 | 0.48 | 45 |
| Reference Materials | 3.03 | 0.65 | 19 | 3.09 | 0.59 | 14 | 2.72 | 0.75 | 20 | 2.95 | 0.66 | 46 |
| Math Concepts | 2.83 | 0.79 | 19 | 2.64 | 0.68 | 14 | 2.74 | 0.74 | 20 | 2.85 | 0.75 | 46 |
| Math Problem Solving | 3.25 | 1.00 | 19 | 2.93 | 0.90 | 14 | 2.79 | 0.59 | 20 | 2.76 | 0.91 | 46 |
| Language Total | 3.35 | 0.89 | 19 | 3.26 | 0.70 | 14 | 3.18 | 0.92 | 20 | 3.08 | 0.67 | 46 |
| Work Study Skills Total | 2.78 | 0.63 | 19 | 2.84 | 0.52 | 14 | 2.72 | 0.50 | 20 | 2.61 | 0.55 | 46 |
| Math Total | 3.03 | 0.79 | 19 | 2.76 | 0.58 | 14 | 2.86 | 0.70 | 20 | 2.82 | 0.73 | 46 |
| Test Total | 3.02 | 0.67 | 19 | 2.96 | 0.59 | 14 | 2.89 | 0.67 | 20 | 2.83 | 0.56 | 46 |

TABLE 12

ANALYSIS OF VARIANCE OF THE IOWA TESTS OF BASIC SKILLS SCORES
AMONG POD II (THIRD GRADE) PUPILS -- 1972-73

| Subtests | Sum of Squares Between Groups | Degrees of Freedom Between Groups | Sum of Squares Within Groups | Degrees of Freedom Within Groups | F |
|---|---|---|---|---|---|
| Vocabulary | 1.55 | 3 | 67.54 | 95 | 0.73 |
| Reading Comprehension | 0.88 | 3 | 58.66 | 95 | 0.48 |
| Spelling | 1.76 | 3 | 218.29 | 95 | 0.26 |
| Capitalization | 2.88 | 3 | 89.54 | 90 | 0.97 |
| Punctuation | 3.99 | 3 | 127.47 | 92 | 0.96 |
| Language Usage | 1.96 | 3 | 61.49 | 92 | 0.98 |
| Maps Skills | 1.95 | 3 | 61.44 | 95 | 1.00 |
| Graph Table | 6.70 | 3 | 917.80 | 94 | 0.23 |
| Reference Materials | 1.45 | 3 | 42.93 | 95 | 1.07 |
| Math Concepts | 0.53 | 3 | 53.51 | 95 | 0.31 |
| Math Problem Solving | 3.40 | 3 | 75.06 | 95 | 1.43 |
| Language Total | 1.07 | 3 | 58.32 | 95 | 0.58 |
| Work Study Skills Total | 0.73 | 3 | 29.32 | 95 | 0.79 |
| Math Total | 0.73 | 3 | 49.32 | 95 | 0.47 |
| Test Total | 0.56 | 3 | 35.48 | 95 | 0.50 |

TABLE 13

SELF-APPRAISAL INVENTORY FOLLOW THROUGH PUPILS
1972-73

| Subtests | Peer Maximum Score Equals 13 | | Family Maximum Score Equals 6 | | School Maximum Score Equals 12 | | General Maximum Score Equals 5 | | Total Maximum Score Equals 40 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| Kindergarten (N = 10) | 7.6 | 2.1 | 3.6 | 0.8 | 8.1 | 2.5 | 5.7 | 1.2 | 25.0 | 5.1 |
| Pod I (first grade) (N = 10) | 8.8 | 1.5 | 4.1 | 1.0 | 8.9 | 1.7 | 6.4 | 1.3 | 28.2 | 3.8 |
| Pod II (second grade) (N = 12) | 8.8 | 2.1 | 3.7 | 1.3 | 8.8 | 1.7 | 6.5 | 1.5 | 27.8 | 4.3 |
| Pod II (third grade) (N = 10) | 7.7 | 1.3 | 4.0 | 0.5 | 7.8 | 1.7 | 7.7 | 1.5 | 27.1 | 3.0 |

D. Follow Through Home Visitation

The parent workers at Dean Rusk Elementary School visited the homes of the eligible Follow Through children. (The data is included in Table 14.) In addition to explaining the Follow Through instructional program to the parents of the pupils, the parent workers obtained necessary demographic information about the children and discussed the health related services provided by Follow Through.

TABLE 14

FOLLOW THROUGH HOME VISITATION
1972-73

| | |
|---|---|
| Number Active Follow Through Families at Beginning of School Year | 216 |
| Number Active Families at Year End | 229 |
| Number Families Visited During the Year | 153 |
| Number Home Visits Made During the Year | 229 |
| Average Number of Visits per Family | 1.4 |
| Percentage of Families Visited | 70.8 |

E. Follow Through Parent Participation

There was a total of 229 parents representing the Follow Through pupils. Of the total number, 145 parents or 63.3 per cent of the parents participated by attending meetings of the Parent Advisory Committee, the Follow Through parent organization, and by volunteering for service in the classroom, the health program, or field trips.

F. Psychological Services

Psychological services were provided for Follow Through eligible children by two Follow Through psychologists. Referrals were made by the classrooms teachers, the social workers, or other Follow Through staff when the need was recognized so that the need would be eliminated.

G. Follow Through Health Services

Health services were provided for Follow Through pupils. All were screened for vision and hearing deficiencies, checked for height and weight, and immunized as needed. All Follow Through kindergarten and new pupils in grades one through three were given dental examinations by a private dentist, physical examinations by a private pediatrician, hematocrits, and urinalysis. Tuberculin tests, directed by the Follow Through health staff, were given through the Public Health Department as the need arose. All Follow Through eligible children were provided dental and health care. (Specific health data are provided in Table 15.)

TABLE 15

FOLLOW THROUGH HEALTH SERVICE DATA
1972-73

| | Number of Pupils |
|---|---|
| Immunization | |
| Complete | 181 |
| Incomplete | 174 |
| Hematocrits | 272 |
| Hearing Tests | 331 |
| Vision Tests | 331 |
| Urinalysis | 285 |
| Medical Examinations | 273 |
| Dental Examinations | 291 |
| T.B. Tests | 159 |

H. Follow Through Social Services

Follow Through provided social services for the Follow Through families. The 1972-73 contact report for Dean Rusk Elementary School is included in Table 16.

TABLE 16

FOLLOW THROUGH SOCIAL SERVICES CONTACT REPORT
1972-73

| | |
|---|---|
| Number of Referrals | 64 |
| Number of Families | 12 |
| Number of Referrals Visited by the Social Service Contact | 17 |
| Number of Visits in Reference to Referrals | 37 |
| Number of Contacts with School Staff | 25 |
| Number of Agency Contacts | 38 |
| Number of Agency Referrals | 2 |
| Number of Times Material Resources were Provided | 10 |
| Number of Times Complex Reasons were Found for Absence | 11 |
| Number of Referrals Solved or Showed Improvement | 10 |
| Number of Families to be Followed up Next Year | 15 |

Performance of the Title I Pupils

The 102 Title I pupils were pupils from the following levels: 5 pupils from Pod I (first grade), 15 pupils from Pod II (second grade), 24 pupils from Pod II (third grade), 19 pupils from Pod III (fourth grade), 15 pupils from Pod III (fifth grade), 14 pupils from Pod IV (sixth grade), and 8 pupils from Pod III (seventh grade). Those Title I pupils from Pod I and II were also participants in Follow Through.

A sample of 65 Title I pupils was administered individually the Self-Appraisal Inventory by a team from the Division of Research and Development. The results of the inventory, listed in Table 17, indicated the Title I pupils had generally positive attitudes toward their peers, their families, and their school.

TABLE 17

SELF-APPRAISAL OF THE TITLE I PUPILS
1972-73

| Primary | Peer Maximum Score Equals 13 | | Family Maximum Score Equals 6 | | School Maximum Score Equals 12 | | General Maximum Score Equals 5 | | Total Maximum Score Equals 40 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| Pod I (first grade) N = 5 | 10.2 | 2.4 | 5.8 | 0.8 | 6.6 | 2.7 | 7.8 | 2.3 | 30.4 | 3.8 |
| Pod II (second grade) N = 11 | 7.7 | 1.3 | 4.5 | 1.7 | 6.5 | 3.3 | 5.5 | 1.0 | 24.3 | 3.0 |
| Pod II (third grade) N = 10 | 8.5 | 1.9 | 3.2 | 1.5 | 7.8 | 1.6 | 6.3 | 2.2 | 25.8 | 5.5 |

| Intermediate | Peer Maximum Score Equals 20 | | Family Maximum Score Equals 20 | | School Maximum Score Equals 20 | | General Maximum Score Equals 20 | | Total Maximum Score Equals 20 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| Pod III (fourth grade) N = 8 | 13.5 | 1.9 | 14.9 | 2.0 | 12.3 | 4.8 | 14.5 | 2.2 | 55.3 | 7.5 |
| Pod III (fifth grade) N = 11 | 11.5 | 2.6 | 13.4 | 2.5 | 12.5 | 2.7 | 12.3 | 2.8 | 49.5 | 7.2 |
| Pod IV (sixth grade) N = 11 | 12.5 | 2.1 | 12.6 | 2.7 | 11.5 | 4.1 | 13.8 | 1.5 | 50.2 | 7.7 |
| Pod IV (seventh grade) N = 9 | 12.5 | 2.0 | 11.9 | 2.6 | 9.8 | 2.8 | 12.8 | 3.0 | 46.9 | 8.1 |

The five Title I pupils from Pod I (first grade) were administered the Metropolitan Readiness Tests (MRT) as pretest. They achieved the following mean scores on the Metropolitan Achievement Tests (MAT) given as posttest: First grade, seven months in word knowledge; first grade, six months in word anlaysis; first grade, five months in reading; and first grade, five months in total reading. Therefore, the Pod I pupils achieved the objective of one month for each month in the program in word knowledge and word analysis.

Only 70 of the 97 Title I pupils from Pod II through Pod IV took both the pretest and posttest word knowledge and reading subtests of the Metropolitan Achievement Tests. As a total group the Title I pupils were performing at the second grade level on both the pretest and the posttest. (The scores are listed in Table 18.) Since the pupils gained three months in word knowledge and less than one month in reading, the objective of a gain of one month for each month in the Title I program was not satisfied. However, 22 pupils (31 per cent of the pupils taking both tests) achieved the objective in word knowledge and 11 pupils (16 per cent of the pupils taking both tests) achieved the objective in reading.

TABLE 18

METROPOLITAN ACHIEVEMENT TESTS, TITLE I PUPILS
1972-73 -- N = 75

| | Pretest | | Posttest | | Gain |
|---|---|---|---|---|---|
| Subtests | Mean Grade Equivalent | S.D. | Mean Grade Equivalent | S.D. | (Grade Equivalent) |
| Word Knowledge | 2.22 | 0.63 | 2.54 | 0.78 | 0.32 |
| Reading | 2.37 | 0.81 | 2.41 | 0.91 | 0.04 |

The analysis of the performance of Title I pupils made use of a Pearson's r to determine the correlation between the Metropolitan Achievement Tests reading performance and the Iowa Tests of Basic Skills reading comprehension performance. There was a correlation of 0.54, which was significant at the .01 level.

## Career Opportunities Program

There were four aides at Dean Rusk Elementary School who participated in the Career Opportunities Program (COP). Since the performance of the Follow Through pupils was analyzed on the basis of the number of years the pupils had participated in Follow Through rather than a comparison of class performance, the effect of the COP aides was not a component of the evaluation. However, in conjunction with COP, the teachers and aides of Dean Rusk Elementary School were asked to complete anonymously the Opinionnaire on Attitudes Toward Education.

The Opinionnaire on Attitudes Toward Education was administered to determine whether the instructional staff was child-centered or subject-matter centered. A score of zero indicated totally subject-matter centered attitude and a score of 50 indicated totally child-centered attitude. The mean scores of the instructional staff of Dean Rusk Elementary School are shown in Table 19, and they indicated that both teachers and aides tended toward child-centered attitudes.

TABLE 19

OPINIONNAIRE ON ATTITUDES TOWARD EDUCATION
1972-73

| | N | Mean | S.D. |
|---|---|---|---|
| Teachers With Aides | 11 | 37.4 | 4.78 |
| Teachers Without Aides | 11 | 36.8 | 5.40 |
| COP Aides | 3 | 31.7 | 2.08 |
| Non-COP Aides | 4 | 32.5 | 3.32 |

A Pearson's r correlation using the scores of the Opinionnaire on Attitudes Toward Education and the pupil achievement levels of the schools with COP aides were utilized in the analysis of the total COP for the 1972-73 school year. No correlation was found between the staff attitudes and the pupil achievement.

## Pupil Attendance

The per cent of pupil attendance at Dean Rusk Elementary School ranged from 86 per cent in the kindergarten to 93 per cent in Pod III (fourth and fifth grades) and Pod IV (seventh grade), with an average of 91 per cent. The average citywide pupil attendance was 91.4 per cent.

The pupil mobility index for Dean Rusk Elementary School was 0.23, which was approximately the same as the previous year (0.22).

# IX. COST ANALYSIS

A cost analysis was performed in order to determine the relative cost for each unit of predicted achievement based upon the Iowa Tests of Basic Skills (ITBS) performance of the pupils and the amount spent during 1972-73. Data from the Atlanta Public Schools, General Funds Report, July, 1973, and the Trust and Agency Report, June, 1973, were used. Included in the analysis were the general funds and the compensatory funds from special projects.

Actual per pupil costs at Dean Rusk Elementary School during 1972-73 ranged from approximately $2,078 to $2,232 in the Follow Through levels (grades K through 3) and from approximately $903 to $981 in non-Follow Through levels, with the average per pupil cost being approximately $1,646. Therefore, the cost per unit of achievement ranged from approximately $12 in Pod IV (grade 7) to approximately $31 in Pod II (grade 2). (See Table 20.)

TABLE 20

COST ANALYSIS
1972-73
TOTAL AVERAGE DAILY ATTENDANCE (K-7) = 530

| | Grade | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | K | First | Second | Third | Fourth | Fifth | Sixth | Seventh | Average |
| Average Daily Attendance | 43 | 69 | 83 | 105 | 55 | 61 | 57 | 57 | 66 |
| Per Pupil Cost | | | | | | | | | |
| A. General Funds | | | | | | | | | |
| 1. Regular | | | | | | | | | |
| a. Salary | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 |
| b. Nonsalary | 72.82 | 72.82 | 72.82 | 72.82 | 72.82 | 72.82 | 72.82 | 72.82 | 72.82 |
| c. Total | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 |
| 2. CIP | | | | | | | | | |
| a. Salary | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- |
| b. Nonsalary | -0- | 2.63 | 2.63 | 2.63 | -0- | -0- | -0- | -0- | 1.26 |
| c. Total | $ -0- | $ 2.63 | $ 2.63 | $ 2.63 | $ -0- | $ -0- | $ -0- | $ -0- | $ 1.26 |
| 3. Total General Funds | | | | | | | | | |
| a. Salary | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 | $ 702.52 |
| b. Nonsalary | 72.82 | 75.45 | 75.45 | 75.45 | 72.82 | 72.82 | 72.82 | 72.82 | 74.10 |
| c. Total | $ 775.34 | $ 777.97 | $ 777.97 | $ 777.97 | $ 775.34 | $ 775.34 | $ 775.34 | $ 775.34 | $ 776.62 |
| B. Compensatory Funds | | | | | | | | | |
| 1. Follow Through | | | | | | | | | |
| a. Salary | $1,256.69 | $1,241.83 | $1,264.83 | $1,215.45 | $ -0- | $ -0- | $ -0- | $ -0- | $ 702.50 |
| b. Nonsalary | 46.09 | 46.09 | 46.09 | 46.09 | -0- | -0- | -0- | -0- | 26.09 |
| c. Total | $1,302.78 | $1,287.92 | $1,310.92 | $1,261.54 | $ -0- | $ -0- | $ -0- | $ -0- | $ 728.59 |
| 2. Kennedy District IV-A | | | | | | | | | |
| a. Salary | $ -0- | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 4.69 |
| b. Nonsalary | -0- | -0- | -0- | -0- | -0- | -0- | -0- | -0- | -0- |
| c. Total | $ -0- | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 5.10 | $ 4.69 |
| 3. Brown, O'Keefe, Washington District IV-A | | | | | | | | | |
| a. Salary | $ -0- | $ 57.43 | $ 57.43 | $ 57.43 | $ 57.43 | $ 57.43 | $ 57.43 | $ 57.43 | $ 52.77 |
| b. Nonsalary | -0- | 8.97 | 8.97 | 8.97 | 8.97 | 8.97 | 8.97 | 8.97 | 8.24 |
| c. Total | $ -0- | $ 66.40 | $ 66.40 | $ 66.40 | $ 66.40 | $ 66.40 | $ 66.40 | $ 66.40 | $ 61.01 |
| 4. Title II | | | | | | | | | |
| a. Salary | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- |
| b. Nonsalary | -0- | 4.07 | 4.07 | 4.07 | 4.07 | 4.07 | 4.07 | 4.07 | 3.74 |
| c. Total | $ -0- | $ 4.07 | $ 4.07 | $ 4.07 | $ 4.07 | $ 4.07 | $ 4.07 | $ 4.07 | $ 3.74 |
| 5. Title I | | | | | | | | | |
| a. Salary | $ -0- | $ 27.10 | $ 67.60 | $ 85.49 | $ 129.21 | $ 91.97 | $ 91.87 | $ 52.50 | $ 70.57 |
| b. Nonsalary | -0- | 0.18 | 0.43 | 0.57 | 0.86 | 0.62 | 0.61 | 0.35 | 0.47 |
| c. Total | $ -0- | $ 27.28 | $ 68.03 | $ 86.06 | $ 130.07 | $ 92.59 | $ 92.48 | $ 52.85 | $ 71.04 |
| 6. Total Compensatory Funds | | | | | | | | | |
| a. Salary | $1,256.69 | $1,331.46 | $1,394.96 | $1,363.47 | $ 191.74 | $ 154.50 | $ 154.40 | $ 115.03 | $ 830.53 |
| b. Nonsalary | 46.09 | 59.31 | 59.56 | 59.70 | 13.90 | 13.66 | 13.65 | 13.39 | 38.54 |
| c. Total | $1,302.78 | $1,390.77 | $1,454.52 | $1,423.17 | $ 205.64 | $ 168.16 | $ 168.05 | $ 128.42 | $ 869.07 |
| C. Total Per Pupil Cost | | | | | | | | | |
| 1. Salary | $1,959.21 | $2,033.98 | $2,097.48 | $2,065.99 | $ 894.26 | $ 857.02 | $ 856.92 | $ 817.55 | $1,533.05 |
| 2. Nonsalary | 118.91 | 134.76 | 135.01 | 135.15 | 86.72 | 86.48 | 86.47 | 86.21 | 112.64 |
| 3. Total | $2,078.12 | $2,168.74 | $2,232.49 | $2,201.14 | $ 980.98 | $ 943.50 | $ 943.39 | $ 903.76 | $1,645.69 |
| Predicted Achievement Quotient | --- | --- | 71 | 72 | 68 | 72 | 67 | 76 | 71 |
| Cost Per Unit of Predicted Achievement Quotient | | | | | | | | | |
| A. General Funds | $ --- | $ --- | $ 10.96 | $ 10.81 | $ 11.40 | $ 10.77 | $ 11.57 | $ 10.20 | $ 10.93 |
| B. Compensatory Funds | --- | --- | 20.49 | 19.77 | 3.02 | 2.34 | 2.51 | 1.69 | 10.35 |
| C. Total | $ --- | $ --- | $ 31.45 | $ 30.58 | $ 14.42 | $ 13.11 | $ 14.08 | $ 11.89 | $ 21.28 |

## X. CONCLUSIONS

In viewing the total program of Dean Rusk Elementary School, conclusions were reached as follows:

A. The Pupil Achievement Study for Dean Rusk Elementary School, conducted by the Division of Research and Development, revealed the overall reading program to be effective for the third consecutive year and the overall mathematics program to be effective for the second consecutive year. (Mathematics was not included in the study of 1970-71.) The pupils achieved as predicted and were in the forty-sixth percentile of the performance in the school system.

B. The pupils of Dean Rusk Elementary School performed below the national norm in reading and mathematics of the Iowa Tests of Basic Skills (ITBS) and were in the lower fourth of the school system's percentile rank.

C. The per cent of pupil attendance was approximately equal to the citywide average.

D. The pupil population of Dean Rusk Elementary School was mobile. Over one-fifth of the pupils either moved into or out of the school during the school year.

E. The mobility of the pupil population was reflected in the Follow Through Program at Dean Rusk Elementary School. Approximately one-half of the Pod I (first grade) pupils had participated in Follow Through during kindergarten; at the Pod II (second grade) level, approximately two-thirds of the pupils had participated in Follow Through since kindergarten; while at the Pod II (third grade) level, less than one-half of the pupils had participated in Follow Through since kindergarten.

F. Regarding the Direct Approach to Decoding (DAD) of the Follow Through Program, the following conclusions were reached:

1. The kindergarten pupils did not achieve the total Phonic Skills Test posttest score predicted by Dr. Ellis Richardson, the Follow Through consultant who developed the DAD materials.

2. There was no significant difference in the performance of the Pod I (first grade) pupils who had attended Follow Through kindergarten and those who had

not attended Follow Through kindergarten on the Phonic Skills Test. The total Phonic Skills Test posttest score, predicted by Dr. Ellis Richardson, was not achieved by the Pod I pupils.

3. There were no significant differences among the Phonic Skills Test pretest scores of the Pod II (second grade) pupils who had entered Follow Through in kindergarten, those who had entered Follow Through in the Pod I (first grade), and those who had entered Follow Through in the Pod II (second grade). The Pod II (second grade) pupils exceeded the total posttest score predicted by Dr. Ellis Richardson.

4. There were no significant differences among the Phonic Skills Test pretest scores of the Pod II (third grade) pupils based on the number of years the pupils had participated in Follow Through. However, the pupils exceeded the total Phonic Skills Test posttest score predicted by Dr. Ellis Richardson.

G. Conclusions regarding the Iowa Tests of Basic Skills (ITBS) were as follows:

1. There was no significant difference (.05 level) between the performance of the Pod I (first grade) pupils who had attended Follow Through kindergarten and those who had not. Both groups were performing at the first grade level.

2. The Pod II (second grade) pupils who participated in Follow Through from the kindergarten through the Pod II (second grade) level performed significantly higher (.05 level) in reading comprehension than the pupils who entered Follow Through at the Pod I level and those who had entered at the Pod II level. All three Pod II (second grade) groups performed at latter first grade or second grade levels on the ITBS subtests.

3. There were no significant differences in scoring, based on the number of years of Follow Through participation, among the Pod II (third grade). All four groups performed at latter second grade or low third grade levels on all subtests of the ITBS.

H. Approximately 71 per cent of the families of eligible Follow Through pupils were visited by the Follow Through staff during the school year, with the average number of visits per family being 1.4.

I. Psychological services were provided for eligible Follow Through pupils when the need was recognized by the Follow Through staff and continued until the need was eliminated.

J. All eligible Follow Through pupils were screened for vision and hearing deficiencies, checked for height and weight, and immunized. All Follow Through kindergarten and new pupils were given dental examinations by a private dentist, physical examinations by a private pediatrician, hematocrits, and urinalyses. Tuberculin tests were given through the Public Health Department. As the need arose all eligible Follow Through pupils were provided health care.

K. Approximatley sixty-three per cent of the parents of Follow Through pupils participated in the Follow Through Program by attending parent meetings or volunteering for service.

L. Of the sixty-four referrals to the Follow Through social service contacts, the problems of ten of those referred were solved or showed improvement.

M. The attitudes, indicated by the Self-Appraisal Inventory, of both the Follow Through and the Title I pupils were generally positive in the following four areas: peer, family, school, and general. (The Title I pupils from Pods I and II were Follow Through participants.)

N. Of the 102 Title I participants, only 75 took both the Metropolitan Achievement Tests (MAT) pretest and posttest. The five Title I participants from the Pod I (first grade) level achieved the Title I objective of a gain of one month for each month in the program in word knowledge and word analysis. Of the 70 Title I pupils from Pods II-IV (grades two through seven) who took both the MAT pretest and posttest, 31 per cent achieved the objective of a gain of one month for each month in the program in word knowledge and 16 per cent achieved the gain in reading.

O. There was a significant correlation (.01 level) between the Metropolitan Achievement Tests (MAT) reading scores and the Iowa Tests of Basic Skills (ITBS) reading comprehension scores of the Title I pupils.

P. The teachers and aides at Dean Rusk Elementary School tended to have child-centered, as opposed to subject-matter centered, attitudes toward education as measured by the Opinionnaire on Attitudes Toward Education.

Q. The per pupil cost for a Follow Through pupil was over twice as much as the per pupil cost for a non-Follow Through pupil at Dean Rusk Elementary School although there was little variance in the predicted achievement index among the grades.

## XI. RECOMMENDATIONS

In viewing the total program of Dean Rusk Elementary School, the following recommendations are made:

A. Continue the effective reading and mathematics programs at Dean Rusk Elementary School.

B. Continue the effective effort in involving parents in the Follow Through Program at Dean Rusk Elementary School, attempting to raise the percentage of parents participating.

C. Attempt to solve a larger percentage of the problems referred to the social service contact of Follow Through.

D. Identify the skill areas, indicated by the Iowa Tests of Basic Skills, in which the pupils were weak and stress the skills in the instructional program of Dean Rusk Elementary School.

E. Observe closely the Title I Program at Dean Rusk Elementary School during the 1973-74 school year, identifying both strengths and weaknesses of the program, in order to maximize the instructional benefits for the Title I pupils.

F. Develop and implement a plan which would promote a positive correlation between achievement and expenditures. Above all, reduce the excessively high expenditures without commensurate achievement.

G. Limit Title I activities to non-Follow Through grade levels.